

Melvin Butte Forest Management Project
Silviculture Treatment Specifications and Implementation Guidelines
Stewardship Imp Units 32,33,34,35,36,37,43

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Management Allocations:

LRMP: Front Country Seen/Unseen MA 18

NWFP: Matrix

EA Unit: 9, 13, 15, 17

EA Treatment Name: Burn/ Treat <8" dbh

Secondary treatments: Underburn (prescribed), pile burning, mastication, pruning

Structure: OFMS – old forest multi-stratum. Old growth ponderosa pine stand with encroaching understory infested with dwarf mistletoe and little to no brush component.

Stand Characteristics

Units	BA/acre 0-9" dbh	BA/acre 9.1- 21" dbh	BA/acre 21"+ dbh	Total BA/acre- all size class	TPA 0-9" dbh	TPA 9.1- 20.9" dbh	TPA 21+" dbh	Total TPA all size classes
32,33,34	54	65	54	173	1169	70	14	1252
35,36,37,43	33	53	68	154	1077	56	16	1148

Goals of thinning:

Reduce ladder fuels within and among old growth ponderosa pine

Reduce level of mistletoe in small trees

Retain all trees >8" DBH

Terms used in prescription:

DMR – dwarf mistletoe rating (see figure 1 below)

DMR infected trees discussion:

Due to the dwarf mistletoe infected overstory ponderosa pine, dwarf mistletoe has spread throughout the units and on all size classes. This abundance has often caused deformed growth and is especially evident in the smaller size classes.

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General Silviculture Prescription:

The prescription includes 2 general locations or conditions that shape the thinning. This is a weed and clean thinning of ladder fuel trees and those infected with dwarf mistletoe. It is not possible to eliminate the presence of dwarf mistletoe, the focus is on ladder fuel reduction and repartitioning resources to the overstory/ leave tree component.

- 1) Radially thin all 4.5ft tall trees up to 8" dbh trees from within 10ft from all trees >8" dbh. (No trees <4.5ft tall need be thinned).
- 2) Outside of # 1 above (10ft from >8" dbh trees)- thin 4.5ft tall up to 8" dbh heavily infested dwarf mistletoe trees (defined as DMR ≥ 3 ponderosa or lodgepole that is- trees with at least 1/2 their crowns infected) **AND** all 4-8" dbh white fir and juniper. *****When choosing mistletoe infected ponderosa pine leave trees strive to select those have the least infection and/or those with infections allocated to the bottom of their crowns (to allow for future pruning or branch scorch from underburning).**

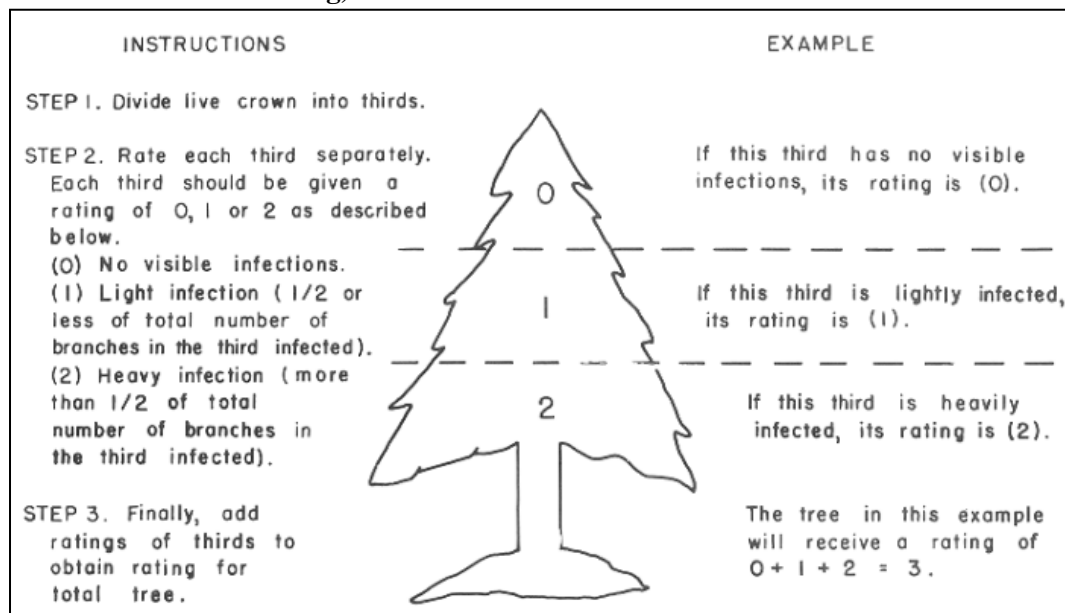


Figure 1. Figure depicting calculation techniques for DMR rating.

Unit Number	EA treatment name	Diameter limit	Thinning Specification	
32, 33, 34, 35, 36, 37, 43	Burn/treat $\geq 8''$ dbh	8" dbh	<p>1) Radially thin all 4.5ft tall trees up to 8" dbh trees from within 10ft from all trees greater than 8" dbh. (No trees <4.5ft tall need be thinned).</p> <p>2) (Outside of 10ft from >8" dbh trees)- thin 4.5ft tall up to 8" dbh heavily infested dwarf mistletoe trees (defined as DMR ≥ 3 ponderosa or lodgepole. i.e. trees with at least 1/2 their crowns</p>	

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			infected) AND all white fir and juniper from 4-8" dbh.	

Hand-piling-

Arrange piles in created openings (from the thinning) or other areas that are an adequate distance from large old growth pine and other desirable leave trees. Locating some piles near >8" dbh white fir and/or highly infected ponderosa pine (DBHs above those in thinning specifications) is acceptable.

Prescribed Fire-

Units shall be underburned using strategies outlined in a future burn plan. Specific silviculture objectives include reducing the level of small (<4.5ft tall dwarf mistletoe infected ponderosa pine) and small diameter (<4" dbh) white fir and lodgepole that were retained during the preceding step of small tree thinning. In this way there is an element of thinning with fire to reduce encroached and/or mistletoe infected trees. Mortality objectives of these and other size class will be further defined prior to completion of burn plan.